

Sexual dysfunction among women with Sjögren's syndrome

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Abstract

Introduction. Sjögren's syndrome (SS) is an autoimmune rheumatic disease that affects exocrine glands and may adversely affect sexual function in female patients. This narrative literature review examined sexual dysfunction among women with SS.

Material and methods. A narrative literature review was conducted using databases including PubMed, EBSCO, MEDLINE, Google Scholar, and Scopus, with the search phrases "Sjögren's syndrome" and "sexual dysfunction women with Sjögren's syndrome". The review covered publications from 2015 to 2024, although several earlier studies were included because of their relevance to the topic.

Results and discussion. The literature indicates that SS can significantly affect patients' sexual function, quality of life, and mental health. Studies have shown that women with SS score significantly lower on measures of sexual function than healthy individuals, and these dysfunctions may be associated with vaginal dryness, chronic fatigue, pain, and depressive symptoms. The article also describes selected forms of therapeutic support that may alleviate sexual dysfunction.

Conclusions. Multidisciplinary teams involving rheumatologists, gynecologists, and psychologists, together with the suggested therapeutic methods, may improve the quality of life of patients with SS. However, further research is needed because the number of articles on sexual dysfunction among women with SS remains insufficient given the prevalence of the disease.

Keywords: Sjögren's syndrome; sexual dysfunction; mental health

Introduction

Sjögren's syndrome (SS) is a chronic autoimmune connective tissue disease that belongs to the spectrum of rheumatic diseases and conditions [1]. The main clinical symptoms in most patients are dryness of the eyes and mouth (sicca symptoms), caused by dysfunction of the lacrimal glands (xerophthalmia) and salivary glands (xerostomia) [2, 3]. This occurs because lymphocytes infiltrate the perivascular and periductal areas of the glands, where they interact with activated salivary gland epithelial cells [4]. As a result of permanent destruction of the lacrimal gland

ducts, tear production is reduced, causing patients to report discomfort, a foreign body sensation in the eye, impaired vision, and reduced quality of life [5]. Dryness may also affect other mucosal surfaces, including the respiratory tract, gastrointestinal tract, and vagina [1, 6].

The disease is divided into two types: primary SS (pSS) and secondary SS, depending on the absence or presence of another connective tissue disease, such as systemic lupus erythematosus, systemic sclerosis, or rheumatoid arthritis (RA) [7]. In addition to dryness, patients with pSS may experience numerous systemic symptoms leading to damage in various parts of the body, including joint pain (arthralgia), kidney disease, lung disease, and cutaneous vasculitis [8]. It should also be noted that SS is the second most common rheumatic disease after RA [9]. Cardiovascular diseases, infections, musculoskeletal disorders, and cancers are significant comorbidities in pSS [10]. In

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addition, patients with this disease have a significantly increased incidence of lymphoma, with a lifetime risk of approximately 5% [11].

To date, there is no effective treatment for SS. Current methods focus on symptom relief and reduction of inflammation [12]. This paper focuses on potential problems related to sexual function in women with SS and examines possible strategies for coping with these difficulties. For this purpose, a literature review was conducted using established databases.

Material and methods

A narrative review methodology was chosen to allow flexibility in the literature search and synthesis. Although a structured database search was performed, the review did not follow a formal systematic review protocol; the primary goal was to synthesize current knowledge on the topic. A comprehensive literature review was conducted using databases including PubMed, EBSCO, MEDLINE, Google Scholar, and Scopus. The search terms were “Sjögren’s syndrome” and “sexual dysfunction women with Sjögren’s syndrome”. The inclusion criteria comprised original research articles, review papers, observational studies, and clinical investigations published in peer-reviewed journals in English. Abstracts were screened, and publications were selected based on their relevance to the review topic. Studies focusing on female patients diagnosed with primary or secondary SS and addressing aspects of sexual function, sexual satisfaction, genital symptoms, psychosocial factors, or quality of life were considered for inclusion. Articles that were not directly related to sexual dysfunction in women with SS and duplicate records were excluded from the review.

After the selection process, eligible publications were analyzed and synthesized. The review covered publications from 2015 to 2024 to ensure that the analysis reflected current scientific knowledge, although several earlier studies were included because of their relevance to the topic.

Sjögren’s syndrome among women

Sjögren’s syndrome is more common in women than in men, with a female-to-male ratio of 9:1 [13]. The disease mainly affects women in the peri- and post-menopausal period [14], with an estimated age of onset of 55 to 60 years [15]. Reports indicate that decreasing levels of female sex hormones (progesterone and estrogens) during menopause may be associated with the occurrence of this disease [16, 17, 18]. The main symptom of SS in women that distinguishes them from men is vaginal dryness.

In one study by van Nimwegen et al., it was suggested that although the pathophysiology of vaginal dryness in women with primary SS is not fully understood, its causes may include vascular dysfunction [19], because vaginal lubrication during sexual arousal is mainly caused by dilation of blood vessels in the vaginal wall [20]. In addition to dysfunction of the exocrine glands, which is a characteristic feature of SS, chronic joint and muscle pain (mentioned above) and fatigue (both somatic and mental) may also occur [21]. This may be associated with depression, the risk of which is high in women with SS [14].

Sjögren’s syndrome may also affect pregnancy. Among other findings, SS has been reported to increase the risk of congenital defects in the fetus, including congenital heart defects [22]. The most well-known fetal risks in pregnancies of women with SS are congenital heart block and neonatal lupus erythematosus [23].

The issue of sexual dysfunction

The World Health Organization (WHO) defines healthy sexuality as a general state of physical, emotional, mental, and social well-being related to sexuality, expressed, among other things, in attitudes, behaviors, and fantasies, and emphasizes the possibility of enjoying pleasurable sexual experiences [24]. If these aspects are not fulfilled, sexual dysfunction may occur. Sexual dysfunction includes, among other symptoms, a frequent decrease in sexual desire, problems achieving orgasm, and pain during or after sexual intercourse (dyspareunia) [9]. It is estimated that approximately 61–68% of women diagnosed with SS experience dyspareunia [25]. This can cause distress and may adversely affect both the woman and her relationship with her partner, as well as overall quality of life [26].

Vaginal dryness may be a significant factor influencing sexual dysfunction. Dryness may be caused by both SS and menopause, during which patients most often present [27]. Friction during sex without sufficient lubrication can cause vaginal lacerations, which in turn can lead to reluctance to have sexual intercourse [28]. In addition to vaginal dryness, pelvic pain may occur, which can also affect libido [29]. Studies suggest a clear relationship between the severity of sexual dysfunction and age, the degree of vaginal dryness, and the physical effects of the disease (e.g., pain and fatigue) in patients with SS [30]. Some studies also report that female genital atrophy and vaginal dryness, which are associated with sexual dysfunction, may be an important cause of depression in women with SS [31].

Methods used by researchers

When assessing sexual function in women with SS, specialists most often use the Female Sexual Function Index (FSFI). This validated 19-item questionnaire assesses six domains: desire, arousal, lubrication, orgasm, satisfaction, and pain. Importantly, the questionnaire refers to the previous four weeks [32, 33]. The total possible score is 36, and higher scores indicate better sexual function.

The validated EULAR Sjögren's Syndrome Patient-Reported Index (ESSPRI) is also frequently used; it can be described as the average of three main patient-reported domains: dryness, limb pain, and fatigue [34, 35]. It includes a rating scale from 0 (no symptoms) to 10 (the worst imaginable symptom) from the patient's perspective.

Because women with SS may experience depression, as noted above, researchers also use the Hospital Anxiety and Depression Scale (HADS), which was developed to help identify anxiety disorders and depression in people with physical illnesses [36].

The Beck Depression Inventory (BDI) was developed for a similar purpose and consists of 21 questions about various aspects of well-being and emotional and physical state during the previous two weeks [37].

Review of selected studies

Most studies concern women with pSS because they usually focus on the impact of SS on sexual dysfunction rather than on the effects of comorbidities. Many studies conducted to date show a tendency for patients with SS to obtain low FSFI scores [20]. Yildiz et al. [38], while examining sexual function in patients with pSS, found not only lower mean FSFI scores than in the control group but also significantly lower scores in five of the six domains assessed (arousal, lubrication, orgasm, satisfaction, and pain) compared with people without pSS. Moreover, it was suggested that the decline in sexual function may depend on disease duration (the longer the duration of SS, the lower the FSFI score). The study by Gözükcük et al. [39] also showed that women with pSS had significantly lower FSFI scores than control patients and that the presence of pSS was significantly and independently associated with sexual dysfunction. Patient age, fatigue level (assessed using the ESSPRI), and depressive symptoms (measured using the HADS) appeared to influence the quality of sexual life of women with pSS. This theory was partly supported by the study by Türk et al. [40], with the difference that the BDI was used instead of the HADS to measure depressive symptoms. They found that sexual dysfunction was more pronounced in people with

depression and anxiety, allowing them to conclude that depression and anxiety may contribute to lower sexual function scores in patients diagnosed with SS.

Another study by van Nimwegen [41] indicated that, in postmenopausal patients, the influence of pSS on sexual function may be partly obscured by other factors, such as changing hormone levels. Nevertheless, a tendency toward lower FSFI scores is still visible in these patients.

One study suggests that vaginal dryness does not significantly affect sexual function. Al-Ezzi et al. [33] concluded that sexual dysfunction is a multifactorial problem in patients with pSS and may be caused more by fatigue and joint pain than by vaginal dryness. In turn, the study by McCready et al. [42] suggests that the severity of vaginal dryness is significantly associated with poorer sexual function, which is somewhat contrary to the findings of Al-Ezzi et al. [33]. One of these researchers' observations is particularly interesting: vaginal dryness occurred not only in postmenopausal women with SS but also in premenopausal patients, as did sexual dysfunction.

Forms of therapeutic support

Researchers have suggested vaginal lubricants, especially nonhormonal polycarbophil-based gels, to reduce the effects of vaginal dryness in patients with SS [27]. Kurt et al. [28] suggested in their study that pelvic floor training may be effective in treating sexual dysfunction and genital and pelvic pain and discomfort, and should be included in rehabilitation programs as a home exercise. Other researchers, in turn, suggest cognitive-behavioral therapy combined with physical exercise as the basis for intervention in chronic fatigue associated with pSS [43, 44].

By discussing these symptoms during office visits, rheumatologists can help patients cope with sexual problems and refer them to an appropriate specialist, such as a gynecologist or sexologist [45]. Rojas-Alcayaga et al. [46] noted, however, that there is currently no comprehensive treatment for Sjögren's syndrome that includes psychological or gynecological aspects. Patients therefore consult different specialists separately. One study showed that women would like better cooperation between their rheumatologists and gynecologists without having to act as intermediaries in communication. It is therefore worth considering the creation of a multidisciplinary team to manage the effects of SS [47].

Sexual dysfunction is a difficult topic to discuss openly, and patients may feel embarrassed. In such cases, they may need encouragement to raise the subject, which may also be important for further treatment [48].

Conclusions

Important factors influencing the severity of sexual dysfunction include symptoms accompanying SS, such as chronic fatigue, muscle and joint pain, and depression. From a therapeutic perspective, lubricants, pelvic floor muscle training, and psychological support can improve sexual function and quality of life in patients. It is also necessary to emphasize the need to create multidisciplinary teams involving rheumatologists, gynecologists, and psychologists, which could enable more comprehensive treatment of patients with SS. Studies on SS indicate that its negative impact on patients' sexual health is significant, and the implementation of appropriate therapeutic methods and better cooperation among specialists can reduce this impact and improve patients' quality of life.

A limitation of the available studies is that many have included small patient groups, sometimes with no more than 100 people in the study group. Moreover, the literature review showed that there are too few studies focused on sexual dysfunction in women with SS, despite the fact that, as statistics show, it is the second most common rheumatic disease. Therefore, further well-designed studies are needed in this area to identify effective ways to prevent or alleviate the symptoms of SS.

Article information and declarations

Author contributions

Conception, data analysis, study design, writing — Adam T. Pawlak (50%); editing — Bartosz Kopeć (25%), Paula Jarczyk (25%).

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Conflict of interest

The authors declare no conflict of interest.

Supplementary material

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